



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------------------------------------------------------------------------------------------|-------------|----------------------|----------------------|------------------|
| 09/890,926 | 08/07/2001 | Shinji Tanaka | 1265-01 | 1861 |
| 35811 | 7590 | 04/15/2004 | EXAMINER | |
| IP DEPARTMENT OF PIPER RUDNICK LLP ONE LIBERTY PLACE, SUITE 4900 1650 MARKET ST PHILADELPHIA, PA 19103 | | | GILLIAM, BARBARA LEE | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1752 | |

DATE MAILED: 04/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,926

Applicant(s)

TANAKA ET AL.

Examiner

Barbara Gilliam

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed January 26, 2004 has been received and fully considered.
2. The rejection under 35 USC 103 over Damme et al. (US 5,922,502) is withdrawn in light of the amendment to claim 10.
3. The indicated allowability of claim 6 is withdrawn in view of the newly discovered reference(s) to Barzynski et al. (US 4,555,471). Rejections based on the newly cited reference follow.
4. Claims 2-6, 9-11 are present.

Claim Rejections - 35 USC § 112

5. Claims 2-5 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The phrase "substantially consisting of" renders the claim indefinite because one of ordinary skill in the art would not know what is meant by the phrase. It is not clear if any additional components or steps, if any are excluded from the scope of the claims. See MPEP 2111.03 and 2173.05(b). For examination purposes, the phrase has been treated as open.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1752

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 2-5, 10-11 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 11-352670 A (translation provided).

a. In JP 11-352670 A, Hiroshi et al. teach an original plate for photosensitive printing comprising a support, a photopolymerizable layer and a masking layer which anticipates the photosensitive resin printing plate of the present application. The photopolymerizable layer of Hiroshi et al., comprising an elastomeric binder [0010]-[0011] and a polyacrylamide or polyvinyl alcohol [0014], an ethylenic unsaturated compound [0015] and a photoinitiator [0016], meets the present limitations for the photosensitive layer. Hiroshi et al. do not specifically teach the thickness of the photopolymerizable layer however the thermosensitive layer has a thickness of 125 μm (0.125 mm) [0029] and in Example 1 [0034] the entire plate has a thickness of 2.8 mm, therefore at most the thickness of the photopolymerizable layer is 2.675 mm. The masking layer of Hiroshi comprises at least an infrared photothermal conversion layer (B-a) which has a material which converts an infrared ray to heat and a thermosensitive layer (B-b) which becomes substantially opaque with heat at the active light ray of non-infrared rays and a cover film if necessary (claim 1). The material of the photothermal layer (B-a) can be carbon black or an infrared ray absorbing pigment or dye such as cyanine dye, which absorbs in the region of 750 – 20,000 nm [0018]. This material

meets the present limitations for the photothermal-transforming substance. The thermosensitive layer comprises a leuco pigment and a color developer [0019], which meet the present limitations for the thermal color former, and the developer respectively. A production method is claimed which comprises the removal of the cover film, imagewise exposure with infrared laser light to make the mask of layer (B-b) followed by whole surface exposure through the mask with active light ray of non-infrared rays and removal of the non exposed areas through development (claim 5). The active light ray use to expose the whole surface of the plate has a wavelength of 150 – 600 nm (preferably 300- 400 nm) [0025].

8. Claims 2-6, 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Barzynski et al. (US 4,555,471).

a. The image recording materials of Barzynski et al. meet the present limitations for the photosensitive resin printing plate material. Specifically, base, relief-forming layer (RL), intermediate layer (I) and mask-forming layer (ML) (see abstract; column 7, lines 40-65) meet the present limitations for the support, photosensitive resin layer, transfer-preventing layer and photocoloring layer respectively. Suitable materials for the relief-forming layer include polymeric binders such as polyvinyl alcohol and its derivatives and polyvinyl acetates, ethylenically unsaturated, photopolymerizable compounds and photoinitiators (column 6, line 24 – column 7, line 40). The intermediate layer has a thickness from 5 to 135 μm (.005 to 0.135 mm) (column 7, lines 64-65). The mask-forming layer contains thermochromic system which when irradiated

with an IR laser having a wavelength greater than 1.00 μm (1000 nm) undergoes an irreversible change in its absorption spectrum in the range from 300 to 420 nm. It can be such that before being irradiated with the IR laser, it has a low optical density with the optical density increasing as a result of irradiation or the reverse can be true (column 2, line 48 – column 4, line 5). The development is described in the Examples 2-4 and in column 8, lines 48-52).

Response to Arguments

9. Applicant's arguments filed January 26, 2004 have been fully considered but they are not persuasive.

a. Applicant argued the photopolymerizable layer of Hiroshi et al. comprises an elastomeric binder and the photosensitive layers of the present application do not. The Examiner maintains the position that the photopolymerizable layer of Hiroshi et al. meets the present limitations for the photosensitive layer of the present application. The transitional phrase of the present claims in reference to the photosensitive layer, "substantially consisting of", is indefinite and has been treated as open language. See 112, 2nd paragraph rejection above. Therefore elastomeric binders are not excluded from the photopolymerizable layer of Hiroshi et al.

b. Applicant is correct in stating that the photopolymerizable layer of Hiroshi et al. can contain polyacrylamide and polyvinyl alcohol in a mixture with the elastomeric binder. This is precisely the Examiner's position. The polyacrylamide and polyvinyl alcohol meet the present limitations for the polymer of the photosensitive layer.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. In 2002/0197540, Goodin et al. teach a photosensitive printing element comprising a flexible support, a photopolymerizable layer comprising an elastomeric composition sensitive to non-infrared actinic radiation and at least one layer comprising an infrared radiation sensitive thermographic material which provides excellent image density (abstract).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara Gilliam whose telephone number is 571-272-1330. The examiner can normally be reached on Monday through Thursday, 8:00 AM - 5:30 PM.

a. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1752

b. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Barbara Gilliam
Examiner
Art Unit 1752
April 7, 2004

bg